

*decisions.* It addresses many of these issues using sophisticated quantitative analyses and models, but others are addressed with less extensive analysis or qualitative discussion primarily.

### **Background & Objectives**

In light of its operating environment in Vermont and the New England wholesale electricity market, and the preferences of its members, WEC has determined that it should pursue several key objectives: minimize power supply-related revenue requirements, reduce power supply risks and cost variance, promote long-term financial stability and increase its percentage of Vermont-based renewable power supply.

*Although Vermont has not introduced retail competition, WEC is under continuous pressure to keep rates as low, and stable, as possible.* At the macro level, the Federal Energy Regulatory Commission (FERC) has required the adoption of new policies and pricing in the ISO-New England (ISO-NE) market that favor siting generation close to load. Federal and state tax changes and other renewable incentives, together with recently-instituted renewable portfolio standards in 3 New England states, have increased the value of renewable generation. All of these developments indicate that further development of supply resources generally, and Vermont-based renewable resources specifically, is in the best interest of WEC's long-term resource portfolio.

*WEC has a substantial need for additional long-term supplies.* It has aggressively pursued energy efficiency over the last decade, and has reaped most of the benefits thereof, so efficiency gains yet unrealized would not be enough to meet WEC's substantial incremental needs. WEC currently has about three-quarters of its energy supplied under fixed price contracts and entitlements, and hedges some of its remaining net short position price risk through strategic forward energy purchases under a developing risk management policy. WEC would like to reduce its net short purchases exposure to zero in the coming years to reduce power supply expense volatility.

WEC faces a number of important supply-related attrition milestones over the twenty-year horizon of the Plan.

### **Baseload & Dispatchable Needs Identified**

A substantial baseload resource, approximately 3 MW of Vermont Yankee, terminated early in 2002. The approximately 2 MW New Milford (CT) landfill-gas generator contract, a renewable baseload resource acquired in 2001 to replace most of WEC's Vermont Yankee entitlement, is scheduled to expire

The following discussion describes the more significant findings and conclusions reflected in each section of the Plan. Note carefully that the Plan is really a working document, and this version concentrates specifically on WEC's upcoming short-to-intermediate-term power supply and resource decisions. It addresses many of these issues using sophisticated quantitative analyses and models, but others are addressed with less extensive analysis or discussion primarily.

### **BACKGROUND & OBJECTIVES**

WEC is under continuous pressure to keep its Members' rates as low as possible. One of the largest portions of WEC's cost of service is represented by its power supply portfolio.

The Federal Energy Regulatory Commission (FERC) has required the adoption of new policies and pricing in the ISO-New England (ISO-NE) wholesale market that favor siting generation close to the load it serves. Federal and state tax changes including incentives promoting renewable power, together with recently-instituted renewable portfolio standards (RPS) in five New England states, have increased the value of renewable generation. Renewable generation has been recognized for a number of years as an effective hedge to the price volatility associated with the fossil fuels used to generate most wholesale electricity in the northeast. Developing societal attitudes and governmental actions suggest renewable resources could serve as an equally effective hedge against the impact on market energy prices of coming emissions regulations.

In light of its operating environment in Vermont and in the New England wholesale electricity market, and the preferences of its Members, WEC managers determined and the Co-op Board voted in 2001 that in addition to maintaining and growing a safe and reliable distribution system, the Co-op should pursue several key objectives in its generation planning:

- ✓ Minimize power supply-related revenue requirements,
- ✓ Reduce power supply risks and cost variance, and
- ✓ Promote long-term financial stability.

In its prior (2003) IRP and since then, these principles have guided WEC's planning and operations.

In the 2003 IRP, a renewable generation path was charted, after being found to meet the foregoing planning objectives. The 2003 IRP focused specifically on the likely net benefits to WEC's supply portfolio of developing the Coventry Landfill-Gas-to-Energy (LFG) project. Since that time, the northeast wholesale generation markets within which WEC operates have changed dramatically, becoming more volatile and higher-priced and in a number of ways, more complex. However, also during that time WEC has successfully brought on line and expanded its Coventry plant. The low cost baseload power produced by that renewable resource<sup>1</sup> has served WEC very well in these ever-evolving power markets, confirming renewable generation resources could successfully meet WEC's planning objectives.

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<sup>1</sup> WEC has sold the renewable attributes of the Coventry Project to a third party in order to lower its already under-market generation cost to Co-op Members.